



February 23, 2009

Charles L.A. Terreni
Chief Clerk and Administrator
South Carolina Public Service Commission
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.
Power Plant Performance Report
Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed is the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of January 2009.

Sincerely,

Len S. Anthony (by dhs)

Len S. Anthony
General Counsel
Progress Energy Carolinas, Inc.

LSA/dhs
Enclosures
45612

c: John Flitter (ORS)

January 2009

The following units had no off-line outages during the month of January:

Brunswick Unit 1
Brunswick Unit 2
Harris Unit 1
Robinson Unit 2
Mayo Unit 1
Roxboro Unit 2
Roxboro Unit 4

Roxboro Unit 3

Full Forced Outage

- A. Duration: The unit was taken out of service at 5:52 on January 17, and was returned to service at 16:34 on January 17, a duration of 10 hours and 42 minutes.
- B. Cause: Loss of Condenser Vacuum
- C. Explanation: The unit experienced a generator lock out due to the loss of a condenser vacuum, which was caused by steam seal regulator controls freezing up.
- D. Corrective Action: Corrective maintenance was performed to address the loss of the condenser vacuum. Upon completion of repairs, the unit was returned to service.

	Month of January 2009		Twelve Month Summary		See Notes*
MDC	938 MW		938 MW		1
Period Hours	744 HOURS		8,784 HOURS		
Net Generation	719,187 MWH		7,036,019 MWH		2
Capacity Factor	103.05 %		85.39 %		
Equivalent Availability	100.00 %		84.21 %		
Output Factor	103.05 %		100.55 %		
Heat Rate	10,305 BTU/KWH		10,403 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	1,148,956	13.94	3
Partial Scheduled	0	0.00	56,421	0.68	4
Full Forced	0	0.00	93,206	1.13	5
Partial Forced	0	0.00	32,605	0.40	6
Economic Dispatch	0	0.00	31	0.00	7
Possible MWH	697,872		8,239,392		8

* See 'Notes for Nuclear Units' filed with the January 2009 report.

** Gross of Power Agency

	Month of January 2009		Twelve Month Summary		See Notes*
MDC	920 MW		936 MW		1
Period Hours	744 HOURS		8,784 HOURS		
Net Generation	696,451 MWH		7,845,506 MWH		2
Capacity Factor	101.75 %		95.47 %		
Equivalent Availability	98.83 %		95.06 %		
Output Factor	101.75 %		99.26 %		
Heat Rate	10,486 BTU/KWH		10,606 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	0	0.00	3
Partial Scheduled	8,029	1.17	25,653	0.31	4
Full Forced	0	0.00	314,426	3.83	5
Partial Forced	0	0.00	95,551	1.16	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	684,480		8,218,164		8

* See 'Notes for Nuclear Units' filed with the January 2009 report.

** Gross of Power Agency

	Month of January 2009		Twelve Month Summary		See Notes*
MDC	900 MW		900 MW		1
Period Hours	744 HOURS		8,784 HOURS		
Net Generation	693,809 MWH		7,823,062 MWH		2
Capacity Factor	103.62 %		98.96 %		
Equivalent Availability	100.00 %		97.09 %		
Output Factor	103.62 %		101.84 %		
Heat Rate	10,611 BTU/KWH		10,779 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	0	0.00	3
Partial Scheduled	22	0.00	1,114	0.01	4
Full Forced	0	0.00	224,235	2.84	5
Partial Forced	0	0.00	8,939	0.11	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	669,600		7,905,600		8

* See 'Notes for Nuclear Units' filed with the January 2009 report.

** Gross of Power Agency

	Month of January 2009		Twelve Month Summary		See Notes*
MDC	710 MW		710 MW		1
Period Hours	744 HOURS		8,784 HOURS		
Net Generation	568,589 MWH		5,431,371 MWH		2
Capacity Factor	107.64 %		87.09 %		
Equivalent Availability	100.00 %		83.25 %		
Output Factor	107.64 %		103.64 %		
Heat Rate	10,429 BTU/KWH		10,771 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	748,860	12.01	3
Partial Scheduled	0	0.00	45,471	0.73	4
Full Forced	0	0.00	247,080	3.96	5
Partial Forced	0	0.00	3,512	0.06	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	528,240		6,236,640		8

* See 'Notes for Nuclear Units' filed with the January 2009 report.

	Month of January 2009		Twelve Month Summary		See Notes*
MDC	742 MW		742 MW		1
Period Hours	744 HOURS		8,784 HOURS		
Net Generation	444,831 MWH		4,095,683 MWH		2
Capacity Factor	80.58 %		62.84 %		
Equivalent Availability	100.00 %		95.25 %		
Output Factor	80.58 %		64.87 %		
Heat Rate	10,611 BTU/KWH		10,720 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	81,830	1.26	3
Partial Scheduled	0	0.00	99,021	1.52	4
Full Forced	0	0.00	79,381	1.22	5
Partial Forced	0	0.00	49,040	0.75	6
Economic Dispatch	107,217	19.42	2,112,772	32.42	7
Possible MWH	552,048		6,517,728		8

* See 'Notes for Fossil Units' filed with the January 2009 report.

** Gross of Power Agency

	Month of January 2009		Twelve Month Summary		See Notes*
MDC	662 MW		670 MW		1
Period Hours	744 HOURS		8,784 HOURS		
Net Generation	467,623 MWH		4,607,564 MWH		2
Capacity Factor	94.94 %		78.26 %		
Equivalent Availability	98.86 %		91.22 %		
Output Factor	94.94 %		85.60 %		
Heat Rate	8,607 BTU/KWH		9,034 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	330,713	5.62	3
Partial Scheduled	5,082	1.03	34,918	0.59	4
Full Forced	0	0.00	117,536	2.00	5
Partial Forced	547	0.11	34,205	0.58	6
Economic Dispatch	19,277	3.91	762,432	12.95	7
Possible MWH	492,528		5,887,476		8

* See 'Notes for Fossil Units' filed with the January 2009 report.

	Month of January 2009		Twelve Month Summary		See Notes*
MDC	695 MW		704 MW		1
Period Hours	744 HOURS		8,784 HOURS		
Net Generation	430,103 MWH		4,119,177 MWH		2
Capacity Factor	83.18 %		66.60 %		
Equivalent Availability	97.79 %		89.33 %		
Output Factor	84.39 %		71.72 %		
Heat Rate	10,521 BTU/KWH		11,109 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	425,444	6.88	3
Partial Scheduled	3,020	0.58	94,011	1.52	4
Full Forced	7,437	1.44	11,996	0.19	5
Partial Forced	990	0.19	129,262	2.09	6
Economic Dispatch	75,530	14.61	1,405,390	22.72	7
Possible MWH	517,080		6,185,400		8

* See 'Notes for Fossil Units' filed with the January 2009 report.

	Month of January 2009		Twelve Month Summary		See Notes*
MDC	698 MW		698 MW		1
Period Hours	744 HOURS		8,784 HOURS		
Net Generation	420,780 MWH		4,324,000 MWH		2
Capacity Factor	81.03 %		70.52 %		
Equivalent Availability	99.85 %		96.14 %		
Output Factor	81.03 %		72.91 %		
Heat Rate	10,642 BTU/KWH		10,527 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	62,005	1.01	3
Partial Scheduled	623	0.12	82,730	1.35	4
Full Forced	0	0.00	21,813	0.36	5
Partial Forced	162	0.03	70,021	1.14	6
Economic Dispatch	97,747	18.82	1,570,663	25.62	7
Possible MWH	519,312		6,131,232		8

* See 'Notes for Fossil Units' filed with the January 2009 report.

** Gross of Power Agency

NOTES FOR FOSSIL UNITS

1. Maximum Dependable Capacity (MDC) in MW: The gross electrical output measured at the output terminals of the turbine generator, during the most restrictive seasonal conditions, minus the normal station service loads.
2. MWH Generated in the Period: The gross electrical output measured at the output terminals of the turbine generator, minus the normal station service loads, during the gross hours of the reporting period.
3. MWH Not Generated Due to Full Scheduled Outages: Calculated by multiplying the full scheduled outage hours (breaker to breaker as reported to NERC) by the MDC rating. This assumes that the unit would be in demand at the time of the outage. However, if the system load was such that the total output of the unit would not be required (due to economic dispatch), the actual MWH not generated due to the outage would be less.
4. MWH Not Generated Due to Partial Scheduled Outages: Calculated by multiplying the partial scheduled outage hours by the MW derating (as reported to NERC). Also included is an estimate of the MWH not generated while reducing power to take the unit off line for a full scheduled outage and the MWH not generated while bringing the unit back to power after the outage (Ramp Time). However, if the system load was such that the total output of the unit would not have been required, the actual MWH not generated due to the outage would be less.
5. MWH Not Generated Due to Full Forced Outages: Calculated by multiplying the full forced outage hours (breaker to breaker as reported to NERC) by the MDC rating. This assumes that the unit would be in demand at the time of the outage. However, if the system load was such that the total output of the unit would not have been required (due to economic dispatch), the actual MWH not generated due to the outage would be less.

6. MWH Not Generated Due to Partial Forced Outages: Calculated by multiplying the partial forced outage hours by the MW derating (as reported to NERC). Included is an estimate of the MWH not generated while reducing power to take the unit off line for a full forced outage and the MWH not generated while bringing the unit back to power after the outage (Ramp Time). However, if the system load was such that the total output of the unit would not have been required, the actual MWH not generated due to the outage would be less.
7. MWH Not Generated Due to Economic Dispatch: Included is an estimate of the MWH not generated due to the unit not being in demand on a System Dispatch basis. System dispatch takes into consideration the reliability and stability of the system as well as economic dispatch since consideration must be given to the mix of generation on line at any one point in time. Also included are estimates of the MWH not generated due to plant conditions (not defined by NERC), which occur from time to time such as: high backpressure, silica in boiler water, phosphate water treatment carryover, instrumentation calibration, and equipment testing.
8. Total MWH Possible in Period: Calculated by multiplying MDC by hours in period.

NOTES FOR NUCLEAR UNITS

1. Maximum Dependable Capacity (MDC) in MW: The gross electrical output measured at the output terminals of the turbine generator, during the most restrictive seasonal conditions, minus the normal station service loads.
2. MWH Generated in the Period: The gross electrical output measured at the output terminals of the turbine generator, minus the normal station service loads, during the gross hours of the reporting period.
3. MWH Not Generated Due to Full Scheduled Outages: Calculated by multiplying the full scheduled outage hours (breaker to breaker as reported to NERC) by the MDC rating. This assumes that the unit would be in demand at the time of the outage. However, if the system load was such that the total output of the unit would not have been required, the actual MWH not generated due to the outage would be less.
4. MWH Not Generated Due to Partial Scheduled Outages: Calculated by multiplying the partial scheduled outage hours by the MW derating (as reported to NERC). Also included is an estimate of the MWH not generated while reducing power to take the unit off line for a full scheduled outage and the MWH not generated while bringing the unit back to power after the outage (Ramp Time). However, if the system load was such that the total output of the unit would not have been required, the actual MWH not generated due to the outage would be less.
5. MWH Not Generated Due to Full Forced Outages: Calculated by multiplying the full forced outage hours (breaker to breaker as reported to NERC) by the MDC rating. This assumes that the unit would be in demand at the time of the outage.

6. MWH Not Generated Due to Partial Forced Outages: Calculated by multiplying the partial forced outage hours by the MW derating (as reported to NERC). Included is an estimate of the MWH not generated while reducing power to take the unit off line for a full forced outage and the MWH not generated while bringing the unit back to power after the outage (Ramp Time). Also included are estimated of the MWH not generated due to plant conditions (not defined by NERC) which occur from time to time such as: preconditioning of fuel, excessive cooling water temperature, and off-peak equipment testing required by the NRC. However, if the system load was such that the total output of the unit would not have been required, the actual MWH not generated due to the outage would be less.
7. MWH Not Generated Due to Economic Dispatch: Included is an estimate of the MWH not generated due to the unit not being fully in demand based on system load conditions. Also included is the MWH not generated on the nuclear plants due to fuel limitations in the cores or the fuel being “stretched” to meet refueling outages.
8. Total MWH Possible in Period: Calculated by multiplying MDC by hours in period.

Plant	Unit	Current MW Rating	January 2008 - December 2008	January 2009	January 2009 - January 2009
Asheville	1	191	67.84	86.23	86.23
Asheville	2	185	64.83	78.21	78.21
Cape Fear	5	144	69.98	85.62	85.62
Cape Fear	6	172	61.62	69.71	69.71
Lee	1	74	62.88	59.16	59.16
Lee	2	77	50.49	40.83	40.83
Lee	3	246	38.21	62.24	62.24
Mayo	1	742	62.59	80.58	80.58
Robinson	1	174	65.88	72.21	72.21
Roxboro	1	369	69.79	91.07	91.07
Roxboro	2	662	78.24	94.94	94.94
Roxboro	3	695	66.00	83.18	83.18
Roxboro	4	698	70.32	81.03	81.03
Sutton	1	93	46.46	31.76	31.76
Sutton	2	104	55.49	43.94	43.94
Sutton	3	403	56.73	43.17	43.17
Weatherspoon	1	48	42.83	31.47	31.47
Weatherspoon	2	49	41.04	32.41	32.41
Weatherspoon	3	75	56.58	30.35	30.35
Fossil System Total		5,201	64.48	75.29	75.29
Brunswick	1	938	85.33	103.05	103.05
Brunswick	2	920	95.43	101.75	101.75
Harris	1	900	98.94	103.62	103.62
Robinson Nuclear	2	710	87.02	107.64	107.64
Nuclear System Total		3,468	91.90	103.79	103.79
Total System		8,669	75.45	86.69	86.69

Amended SC Fuel Rule
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of $\geq 92.5\%$ during the 12 month period under review. For the test period April 1, 2008 through January 31, 2009, actual period to date performance is summarized below:

Period to Date: April 1, 2008 to January 31, 2009

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period	A =	23,489,756 MWH
B. Total number of hours during SCPSC test period	B =	7,345 hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C =	3,485 MW for 2008 3,468 MW for 2009
D. Reasonable nuclear system reductions (see page 2)	D =	2,525,018 MWH
A. SC Fuel Case nuclear system capacity factor: $[(A + D) / (B + C)] * 100 =$		
		101.7%

NOTE:

If Line Item E $> 92.5\%$, presumption of utility's minimum cost of operation.

If Line Item E $< 92.5\%$, utility has burden of proof of reasonable operations.

Note: Brunswick 2 MDC value was decreased by 17 MW, effective 12/31/08, primarily reflecting the impact of changes associated with calculation methods (NERC requires annual evaluation of environmental and operational parameters; former process used three to five-year average), environmental monitoring and compliance, and the impact of equipment degradation.

Amended SC Fuel Rule
Nuclear System Capacity Factor Calculation
Reasonable Nuclear System Reductions
Period to Date: April 1, 2008 to January 31, 2009

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC (April - December 2008)	938 MW	937 MW	900 MW	710 MW	3,485 MW
Unit MDC (January 2009)	938 MW	920 MW	900 MW	710 MW	3,468 MW
Reasonable refueling outage time (MWH)	644,015	0	0	732,791	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	224,462	284,728	229,209	271,491	
Reasonable coast down power reductions (MWH)	0	0	0	9,720	
Reasonable power ascension power reductions (MWH)	42,784	31,466	0	21,070	
Prudent NRC required testing outages (MWH)	3,866	23,271	0	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	6,145	0	0	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	915,127	345,610	229,209	1,035,072	
Total reasonable outage time exclusions [carry to Page 1, Line D]					2,525,018